Explanation Green Consumer Willingness through Three Component Attitude Model during COVID-19 Pandemic

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Abstract

The COVID-19 pandemic affected consumers' attitudes, willingness and behavior worldwide. This study aims to analyze consumers' willingness towards green food products consumption during the COVID-19 pandemic in Iran. Respondents supported suppliers of green food products and being aware of the importance of healthy green food products. The purpose of this empirical study is to examine the impact of three component attitude model on green consumer willingness through marketing mix model towards green food products consumption in the Iranian context of explanation consumers' willingness to be environmentally friendly. The research model is based on structural equation modeling from data collected from 352 consumers of green food products in Iran. The findings revealed that cognitive, affective and conative components have impact on green marketing mix model. Also, green marketing mix model as well as perceived quality have impacts on the green consumers' willingness.

Keywords: Affect component, Cognitive component, Conative component, Consumer social responsibility, Green marketing mix model

Introduction

Many approaches are used to predict and understand a specific behavior, and the concept of attitude plays an important part in them (Leone et al. 1999). Behaviors occur due to the process of delivering knowledge of a stimulus to the determination of the attitude to act or not act. Attitude has been found influential in predicting individual intention to purchase goods (Nomi & Sabir 2020). During the late 1960s and early 1970s a number of attitude models emerged. The most important of them has been the Fishbein/Ajzen's Three Component Attitude Model. It conceptually recognizes the three components of the traditional attitude concept namely cognitive, affective and conative. Several studies have been conducted to research upon the dynamics underlying attitudes, and their relationship with acts of behavior. In terms of consumer behavior, consumer attitudes may be defined as an inner feeling of favorable or unfavorable towards a product offering and the marketing mix (Sahney 2022). According

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to attitude theory, customers may support the three component attitude model according to their attitudes to marketing communication, marketing decisions and personal benefits (Chou et al. 2020).

Nowadays, environment awareness of consumers has considerably increased throughout the world. Environmental problems have become global issues, both marketers and consumers are becoming more sensitive to the need for switch to green products (Mahmoud 2018). Also, many organizations have engaged the way to become more socially responsible by developing green products. The phenomena of green consumer behaviors have changed as a new model for experts. The modern idea of green marketing has emerged as a competitive tendency to attract customers' attention in the marketplace (Liau et al. 2020). Customers, based on their perception of green marketing development, may determine willingness based on attitude-behavior models. Thus, determining whether greening assessment will determine customers' attitudes is warranted. Very few studies have examined green marketing mix and purchase intention (Mahmoud 2018). Nevertheless, there are still ambiguities about it (Chou et al. 2020).

There is a need to integrate theoretical views in this line of research to investigate pro-environmental consumer behavior. The Theory of Planned Behavior (TPB), however, remains one of the most dominant and successful theories for examining pro-environmental behavior (Nimri et al. 2020). This theory states that certain behaviors depend on one's intention to act (Bhutto et al.

2022). This theory has been applied in environmental and behavioral studies to capture the consumer willingness to purchase green products. However, the relevance of behavioral measures of this theory to green markets is still questionable (Chou et al. 2020). Therefore, this study used the theory of planned behavior to demonstrate consumer willingness.

Furthermore, food consumption has been seen as a major issue of achieving sustainability, because it is associated with the environment, individual and public health, social cohesion, and the economy. Besides, consumers have profoundly changed their consumption patterns and increasingly started preferring environmentally friendly food products after a series of environmental problems (Qi 2020). The adverse fall on human lives through the fear of pandemics worldwide. People's intention to purchase green or environment-friendly products has increased due to the fear of COVID-19 epidemic and health concerns. The green products purchase attitude and consumer behavioral intention have been a noble phenomenon to protect the COVID-19 environment and to save human health (Chen et al. 2022). The pandemic period has determined significant changes regarding consumer behavior surrounding food. Some study reported that during the first lockdown, an important segment of consumers ate more than usual. It was noticed that an important percentage of consumers continued to eat healthy and some even healthier than before (Basir et al. 2023, Muresan et al. 2021). The results showed that the pandemic had an important consequence

on online commerce and many consumers started to purchase organic food online. A cross-country study concluded that consumers reduced their consumption of fresh food. Previous studies underlined changes in consumers' attitude and behavior during the COVID-19 pandemic, with fewer accents on sustainable consumption. The studying on consumers' attitude and behavior during the COVID-19 pandemic is still at a nascent stage (Qi 2020). None of the studies have been done on green food products consumption during the COVID-19 pandemic in the Iranian context. To respond to the current trends toward a more sustainable-oriented consumption, one should understand the current willingness and perceptions of consumers (Muresan et al. 2021). As Figure 1 shows, according to Chou et al. research model (2020), this study applies the three component attitude model to examine the influence of consumers' attitude components on their willingness to purchase green products for their healthy life due to the uncertainty of COVID-19 pandemic.

Literature Review
Green Consumer Willingness

Purchase willingness is an opportunity for consumers to plan to buy a specific product at a certain time (Basir et al. 2023; Samie & Tafreshi 2022). Consumers are more likely to show a positive attitude towards green products consumption when they are more concerned to the environmental problems. They have highlighted that consumer environmental attitude has a positive impact on consumers' willingness to pay for green products (Khor & Mah 2020). Yet, consumers differ in their responses to green products according to dispositional consumer characteristics (Wei et al. 2018). The research results indicate that there is a major group of consumers who consider views on green products in their purchasing decisions. Some authors indicate that there is a gap between intentions and behaviors in purchasing ecological products. As a group of consumers who have positive attitudes but do not buy ecological products? Previous studies found that lack of information available to consumers, higher prices over those of conventional foods, and the limited and erratic domestic supply were factors that influenced consumers' willingness to purchase (Leszczynska 2014).

Understanding consumers' attitude toward practicing green behavior is vital for business as well as environmental reasons. Changing in behavior requires changes in attitude first (Nameghi & Shadi 2013); hence the three component attitude model has tried to achieve a series of perceptual attitudes that can recognize consumers' decision-making, marketing intention and willingness (Chou et al. 2020). Thus organizations should try to incorporate the marketing mix into green marketing mix (Farradia & Bin Bon 2019). Green marketing activities is developed to generate and facilitate any exchanges intended to enhance human needs and satisfaction with less impact on the environment. It implies that human activities like buying and consuming products that are eco-friendly are necessary in shaping the environment. Consumers demonstrate their attitude toward green marketing based on their ability to recognize and purchase eco-

friendly products (Kofi 2017). Green consumers avoid products that inflict substantial damage on the environment during their manufacture, consumption, or disposal (Witek & Kuzniar 2021). Since people's attitudes affect their willingness to consume, it is important to have a better understanding of the factors that affect consumer attitude (Chou et al. 2020).

Food consumption has been recognized as an environmentally significant behavior, because food production, transport, and consumption contribute to environmental problems (Tobler et al. 2011). The food industry like restaurants is notoriously wasteful and exerts a heavy toll on the environment due to its environmentally unsustainable practices (Arun et al. 2021). Unlike other consumption goods, food is a basic need and cannot be renounced or substituted. Dietary choices form an important part of overall sustainable consumption, and with daily food choices, consumers make important environmental decisions. A large body of research has examined consumers' willingness to purchase and consume organic food. Today, environmentally friendly food is gaining importance (Tobler et al. 2011). Making ecological food choices is difficult for consumers, as many different factors have to be taken into account. At the same time, consumers' awareness of their impact on the environment and their role in minimizing it is increasing (Arun et al. 2021). It is assumed that willingness to consume ecologically occurs in steps, ranging from unwillingness to do the desired behavior to performing the desired behavior (Tobler et al. 2011). With a

recent wave of responsible green consumerism being observe (Arun et al. 2021), showing how sustainability decisions can influence the attributes that are important to consumers: quality, environmental friendliness, and marketing mix (Chou et al. 2020).

Three Component Attitude Model

Attitude is a subjective tendency to act in accordance with or against a particular subject (Karami et al. 2019). Many experts believe that attitudes are the most crucial element to understand consumer behavior since behaviors are greatly determined by people's attitudes towards the subject (Perera 2011). The attitudes toward behavior refer to the degree that a person has a favorable or unfavorable evaluation toward a specific behavior developed from beliefs about some object or in certain behaviors. Understanding attitudes can help organizations better assess how consumers view green products and the consumers' willingness to purchase green products (Muller et al. 2021). In the theories of green marketing, the theory of planned behavior is often used to explain the relationship between consumer attitude and behaviors (Chou et al. 2020). This theory is a theoretical framework that explains an individual's decision-making process (Ren 2018). It assumes that a behavior can be directly predicted by the intention to perform the behavior, and indirectly predicted by the perceived behavioral control under circumstances where the behavior is not under complete volitional control. Attitude towards the behavior, subjective norm, and perception of behavioral control jointly form

behavioral intentions. Behavioral intention can be viewed as an indicator of a person's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Perera 2011). This theory explains both behavioral intention and actual behavior. Furthermore, such theories support the argument that consumer intention can be defined as the willingness of consumers to buy green products and their intrinsic motivation. The intention to purchase green products is expressed as a person's willingness to purchase green products instead of conventional products that are harmful to the environment. This theory has been used to consider certain critical variables within the green marketing literature (Muller et al. 2021).

Due to the interpretation of theory of planned behavior may not explain the complexity of green consumer behavior, some scholars suggest adopting the three component attitude model to explore the relationship between green attitude and behavior of consumers (Chou et al. 2020). Among components of the attitude models, affective, cognitive and conative received significant research attention in the field of consumer behavior (Quoquab & Mohammad 2020). The cognitive component refers to the mental process of perception, conceptions and beliefs about the attitudinal object (Garcıa-Santillan et al. 2012). In terms of marketing, cognitive component consists of consumers' knowledge about the products offering and the marketing mix. Consumer attitudes are formed on the basis of experiences as well as information received from personal and impersonal sources of information that are retained in one's memory. These get shaped by beliefs and opinions, where the consumer begins to perceive that the attitude object possesses certain attributes and acts of behavior would lead to outcomes (Shaney 2022). The affective component describes the emotional component of attitudes (Perera 2011). In fact, this is understood to be the attitude itself, as it depicts emotional states that are positive, neutral or negative. In marketing terms, it refers to a consumer's feelings about the products offering and the marketing mix. These emotions could relate to an attribute or the overall object. It is evaluative in nature and would vary on a continuum as like or dislike. It manifests itself through feelings and resultant expressions and is indicative of consumer reaction towards the offering and the mix, which subsequently affects the purchase decision making as well as the purchase process (Shaney 2022). The conative component is related to expressions of behavioral intention or action, behavior that represents the tendency to act or resolve in a specific way (Garcıa-Santillan et al. 2012). It depicts the outcome of an attitude. The conative component, is indicative of an individual's tendency to behave (to buy or not to buy) in a particular manner with respect to the attitude object products offering (Shaney 2022).

Green Marketing Mix Model

Marketing mix is a set of controllable, tactical marketing tools that firms blend to produce the response that they want in the target market namely product, place, promotion and price (Ozturkoglu 2016). In modern concepts

of marketing, the necessity for enterprises to engage in socially and ecologically oriented activities is underlined (Rudawska 2017). The green awareness began in between of the 1960s and early 1970s with increasing concern about the negative impact of consumption pattern, impact of economic and population growth on the environment. But, a serious concern of green marketing appeared in the late 1980s with a rapid increase in the consumer awareness for the green products. The increasing awareness in environment friendly products, their willingness to pay for these products, increased concern for these products which encouraged companies to show interest in the green marketing (Kumar et al. 2011).

Green marketing covers all aspects of marketing mix including green product, green place, green promotion and green price (Ozturkoglu 2016). Green marketing mix refers to a set of marketing tools and elements that allow the organization to serve the target market and achieve organizational goals without harming the natural environment. Green marketing mix is a concept emphasizing more on the environmental aspects through the implementation of business activities. The green product can be described as a product that is produced to satisfy a legitimate human need and that is not harmful to the human health or the environment. The green promotion refers to the communication process that aims to influence consumers' purchase behavior by encouraging them to buy products that do not hurt the environment and to direct their interest to the positive consequences of their purchase behavior for themselves as well as

for the environment (Shalash 2021). The green price refers to the price particular in the light of company's policies with regard to environmental consideration imposed by rules and corporation instructions or its initiatives in this regard (Mahmoud 2018). The green place refers to the physical location where a product can be purchased as well as the movement of goods within the market should be through environmentally friendly channels, and correctly placed at environmentally safe place where there is no contamination whatever (Shalash 2021).

Methods and Materials

The researches show the importance of marketing mix and how the components of marketing mix such as product, price, place, promotion, are the key influence factors between consumer attitudes with behavior (Hanesova 2000). According to research findings of Chou et al. (2020), green consumption intention is significantly and indirectly driven by attitude to green products. Also, perceived quality effects on marketing mix and consumer willingness in environmental concern. Though, when an organization has high consumer social responsibility for marketing mix, the consumer attitudes of cognitive, affective, and conative model may be less effective. According to research findings by Beyene (2018) and Mahmoud (2018), there is a significant relationship between green marketing mix and consumer's purchase intention and behavior.

In order to better understanding of consumers' attitudes and behaviors about environmental issues during COVID-19

pandemic, this study inspired by Chou et al. (2020) research framework shows that the main determinant of green consumer willingness is sustainability consideration in green marketing mix model, which is significantly affected by the three component attitude model. The research framework shown in Figure 1 provides a conceptual framework illustrating the relationship hypothesized in this study. This conceptual framework includes three key parts. The first part of the conceptual framework shows cognitive, affective and conative components as three component attitude model. The second part of the conceptual framework shows marketing aspects including green marketing mix, consumer social responsibility and perceived quality. The third part of the conceptual framework shows green consumer willingness. Overall, this research studies the impact of cognitive, affective and conative components as three component attitude model on green marketing mix. While prior studies were not investigated these components separately. This research also studies the impact of green marketing mix on green consumer willingness.
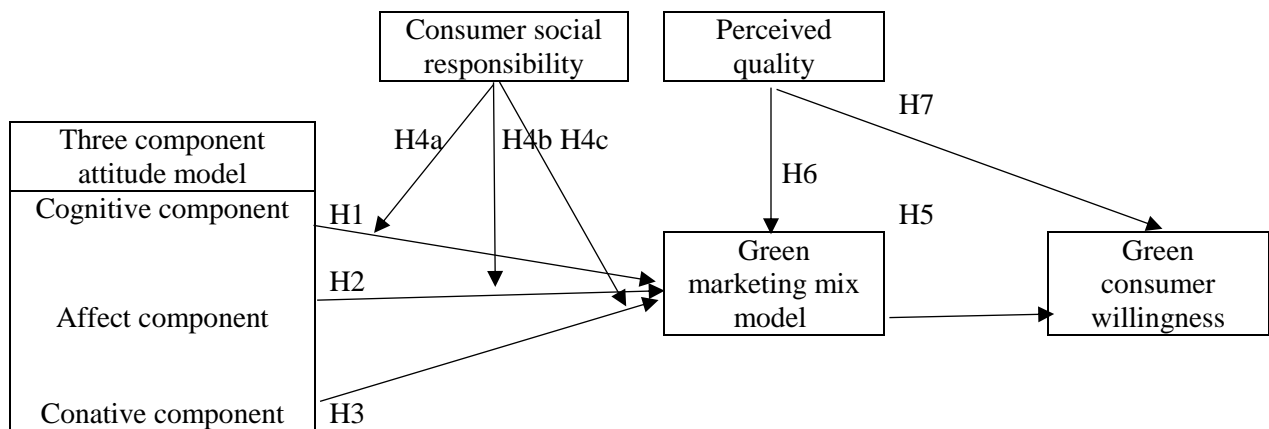

Figure 1. Conceptual Framework

The hypothesis formulated with regard to the objectives above, are as follows:

H1: The cognitive component has an impact on green marketing mix model.

H2: The affective component has an impact on green marketing mix model.

H3: The conative component has an impact on green marketing mix model.

H4a: The consumer social responsibility moderates the impact of cognitive component on green marketing mix model.

H4b: The consumer social responsibility moderates the impact of affective component on green marketing mix model.

H4c: The consumer social responsibility moderates the impact of conative component on green marketing mix model.

H5: Green marketing mix model has an impact on the green consumer willingness.

H6: The perceived quality has an impact on green marketing mix model.

H7: The perceived quality has an impact on the green consumer willingness.

Methodology

This study used quantitative and descriptive methodology to analyze the collected data. The analysis was done in terms of the obtained results from data gathered. In doing so, the data regarding the three component attitude model, consumer social responsibility, green marketing mix, perceived quality, and green consumer willingness were obtained through questionnaires.

The gathering of data for quantitative method was done based on 7 hypotheses proposed to study the impact of the three component attitude model on the green consumer willingness in terms of the consumers of green food products during the COVID-19 pandemic in Iran. In the present study, to analyze the data and test the research hypotheses, Structural Equation Modeling (SEM) was used at Partial Least Squares.

According to Figure 1, research framework shows a mental process of the three components attitude model indicating the perceptual attitudes that effect consumer determinations. The measurement items of survey were obtained from Chou et al. (2020) considering the COVID-19 pandemic as follows: the measurement items of the three

component attitude model including cognitive component (4 items), affective component (4 items), and conative component (4 items), consumer social responsibility, which emphasizes the essential influences of green literacy (11 items), perceived quality, which refers to the consumer judgment of the superiority or the excellence of the product design (5 items), green marketing mix model (13 items) including product (4 items), pricing (3 items), place (3 items), and promotion (3 items), the green consumer willingness (4 items). Based on the target population group of this study, items were developed and modified into a questionnaire format for consumers of green food products during the COVID-19 pandemic in Iran. This study adopted a 5-point Likert scale for the questions in survey. Responses were given on a five point Likert scales ranging: very low (1), low (2), average (3), high (4), and very high (5). Also, demographic data were gathered for gender, marital status, age, and education. In order to evaluate the validity and reliability of the measurement model, the structural equation modeling method of Smart-Pls and SPSS software was used as presented in Table 1. The respondents of study were consumers of green food products during the COVID-19 pandemic in Iran. A questionnaire was distributed to consumers of green food products in Iran during June 2021. The survey package consisted of closed-ended questions. The Cronbach's Alpha coefficient was used to test and determine the reliability of the survey instruments in this study. Before the distribution survey, convenience sampling was used to collect 30 potential

consumers of green food products for a pretest. Table 1 shows results of questionnaires reliability is more than 0.7 in Cronbach's Alpha; therefore, it can be interpreted that all of the instruments are reliable. Then this study collected questionnaires from 390 individuals and selected 352 valid samples from respondents, excluding respondents who provided incomplete answers. The analysis used actual samples, producing an actual response ratio of 90.2%.

Table 1. Validity and Reliability of the Measurement

Research Variables	Survey Items	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	Factor Loading (FL)
Green consumer willingness (CW)	CW1	0.783	0.803	0.588	0.929
	CW2				0.719
	CW3				0.832
	CW4				0.727
Cognitive component (CC)	CC1	0.724	0.742	0.754	0.764
	CC2				0.841
	CC3				0.892
	CC4				0.938
Affect component (AC)	AC1	0.751	0.799	0.676	0.741
	AC2				0.941
	AC3				0.786
	AC4				0.936
Conative component (BC)	BC1	0.716	0.731	0.701	0.946
	BS2				0.712
	BC3				0.774
Green marketing mix model (MM)	MM1	0.722	0.746	0.691	0.714
	MM2				0.952
	MM3				0.687
	MM4				0.906
	MM5				0.915
	MM6				0.796
	MM7				0.719
	MM8				0.842
	MM9				0.701
	MM10				0.702
	MM11				0.912
Consumer social responsibility (SR)	SR1	0.776	0.791	0.712	0.908
	SR2				0.784
	SR3				0.769

	SR4				0.773
	SR5				0.863
	SR6				0.698
	SR7				0.788
	SR8				0.773
	SR9				0.921
	SR10				0.721
Perceived quality (PQ)	PQ1	0.739	0.772	0.621	0.931
	PQ2				0.917
	PQ3				0.891
	PQ4				0.728
	PQ5				0.929

In order to evaluate the coefficients of reliability and convergent validity in the present study, based on the partial least squares method, the extracted mean indices, combined reliability and Cronbach's alpha were used. In Table 1, all the values listed are higher than desired (FL0.7, AVE 0.5, CR 0.7). To examine the divergent validity, the degree of relationship of a structure with its indices in comparison with the relationship of that structure with other structures is shown by the Fornell-Larker matrix. In this method, only the first degree latent variables are entered in the matrix. To calculate this matrix, the square root value of the latent variables in the present study should be greater than the correlation between them. Based on Table 2, it can be seen that the latent variables in the model interact more with their own indicators in comparison with other structures and the divergent validity of the model is appropriate.

Table 2. Divergent Validity of the Measurement

Structures	Cognitive component	Affect component	Conative component	Perceived quality	Green marketing mix model	Green consumer willingness	Consumer social responsibility
Cognitive component	**0.744**						
Affect component	0.251	**0.822**					
Conative component	0.106	0.177	**0.837**				
Perceived quality	0.346	0.292	0.296	**0.787**			
Green marketing mix model	0.261	0.250	0.313	0.224	**0.831**		
Green consumer willingness	0.231	0.388	0.285	0.129	0.220	**0.767**	
Consumer social responsibility	0.162	0.297	0.415	0.309	0.228	0.147	**0.844**

Results

Table 3 shows the demographics of the respondents. The results show that out of 352 respondents who returned the completed questionnaires, most of them were female, married, 36-40 years old, and master.

Table 3. Demographics of the Respondents

Demographics	Frequency	Percentage
Gender		
Male	165	46.90%
Female	187	53.10%
Marital status		
Married	258	73.30%
Single	94	26.70%
Age		
30 years old and less	37	10.50%
31-35 years old	82	23.30%
36-40 years old	98	27.80%
41-45 years old	95	27%
46 years old and over	40	11.40%
Education		
Diploma	56	15.90%
Junior college	75	21.30%
Bachelor	16	4.50%
Master	185	52.60%
Phd	20	5.70%

The results of description of the research variables is shown in Table 4. The results show that the mean for the green consumer willingness is 3.96 ± 0.67. This can be explained by the fact that respondents prefer to consume the green food products during the COVID-19 pandemic. They believed that the price of green food products is reasonable regarding the importance of human health during pandemic. It was noticed that the respondents believed that suppliers of green food products use higher-quality ingredients. They believed that green food products are healthier. The results show that the mean for other research variables are respectively: cognitive component 3.83±0.71, affect component 3.57±0.89, conative component 3.79±0.83, green marketing mix model 3.62±0.84, consumer social responsibility 3.80±0.66, and perceived quality 3.77±0.93. It shows that, all of them were average based on respondents' beliefs.

Table 4. Average Research Variables

Research Variables	Lowest Obtained	Highest Obtained	Mean	Std. Deviation
Green consumer willingness	2.70	5.00	3.96	0.67
Cognitive component	2.40	5.00	3.83	0.71
Affect component	2.00	5.00	3.57	0.89
Conative component	2.00	5.00	3.79	0.83
Green marketing mix model	2.00	5.00	3.62	0.84
Consumer social responsibility	2.40	5.00	3.80	0.66
Perceived quality	2.70	5.00	3.77	0.93

The results of Kolmogorov V-Smirnov test are shown in Table 5. The results show that the significance level is less than .05, so the data distribution of research variables is not normal and non-parametric tests should be used. Due to the non-compliance of the research variables with the normal distribution to test the hypotheses, structural equation modeling with Minimal Partial References (PLS) and Smart PLS software is used.

Table 5. Kolmogorov V-Smirnov Test

Research Variables	Test statistics	The significance level
Green consumer willingness	1.312	0.000
Cognitive component	1.225	0.000
Affect component	1.113	0.000
Conative component	1.393	0.000
Green marketing mix model	1.457	0.000
Consumer social responsibility	1.219	0.000
Perceived quality	1.502	0.000

Criteria R² were used to fit the structural model. According to the definition of values 0.19, 0.33 and 0.67 as very weak, weak and

moderate values of R², the values obtained in Table 6 indicate a relatively good fit of the structural model.

Table 6. Convergent Validity of Model Structures Based on R² Values

Research Variables	R²	Communality
Green consumer willingness	0.909	0.588
Cognitive component	-	0.554
Affect component	-	0.676
Conative component	-	0.701
Green marketing mix model	0.966	0.691
Consumer social responsibility	-	0.712
Perceived quality	-	0.621

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onsidering the average of common values of structures and the average of R² related all endogenous structures of the model, GOF indicator for the overall fit of the present research model is equal to:

$$GOF = \sqrt{Communalities \times \overline{R^2}} =$$

$$\sqrt{0.649 \times 0.937} = 0.780$$

According to the three criteria of 0.01, 0.25 and 0.36 as weak, medium and strong values, the result of 0.780 for GOF indicates a strong overall value of the research model.

In Figure 2, the numbers on the paths represent the path coefficients of the research variables and the numbers on the arrows represent the explicit variables, indicating the factor loads of the questions. Path coefficients and factor loads of research variables and items were examined at the level of 0.95. According to Figure 2, the factor load of all variables is acceptable above 0.7. This means that the correlation coefficients of the explicit variables have the necessary power to estimate their hidden variable.
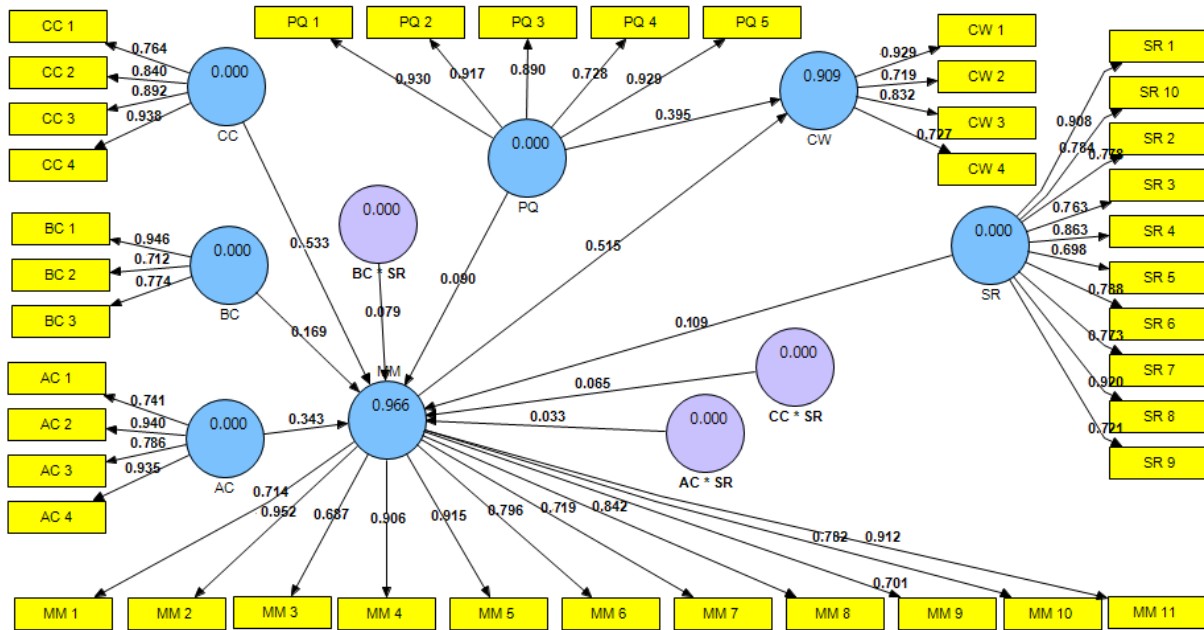
Figure 2. Path coefficients and factor loads

Figure 3 shows the model in the case of a significant multiplication. The criterion for confirming the research hypotheses is that the positive path coefficients and significant statistics are higher than the absolute value of 1.96.
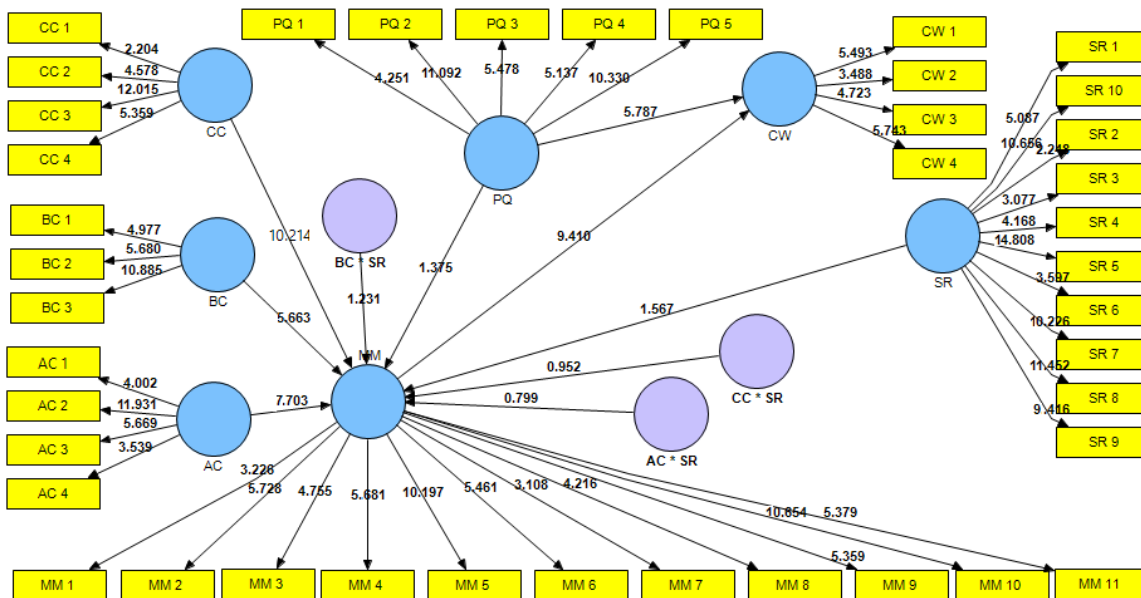

Figure 3. Significant Statistics (T-Value) Conceptual Framework

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Table 7 shows the results of research hypotheses. The criterion for confirming the research hypotheses is that the positive path coefficients and significant statistics are higher than the absolute value of 1.96. As Table 7 shows:

- The hypotheses 1, 2, 3, 5 and 7 were accepted with significant statistics greater than the absolute value of 1.96 and a positive path coefficient. While, hypotheses 4a, 4b, 4c, and 6 were rejected.

- The calculated T value is 10.214, 7.703 and 5.663 for the variables cognitive component, affective component and conative component respectively with green marketing mix model out of range (-1.96 and +1.96). Thus the significance of the relationship is accepted. The effect of cognitive component, affective component and conative component on green marketing mix respectively is equal to 0.533, 0.169 and 0.343.

- The calculated T value is 0.952, 0.799 and 1.231 for the variables cognitive component, affective component and conative component with green marketing mix model regarding consumer social responsibility as a moderating variable in range (-1.96 and +1.96). Thus the significance of the relationship is rejected.

- The calculated T value is 9.410 for the variable green marketing mix model and green consumer willingness out of range (-1.96 and +1.96). Thus the significance of the relationship is accepted. The effect of marketing mix model on green consumer willingness is equal to 0.515.

- The calculated T value is 1.375 for the variable perceived quality and green marketing mix model in range (-1.96 and +1.96). Thus the significance of the relationship is rejected.

- The calculated T value is 5.787 for the variable perceived quality and green consumer willingness out of range (-1.96 and +1.96). Thus the significance of the relationship is accepted. The effect of perceived quality on green consumer willingness is equal to 0.395.

Table 7. Test Results of Research Hypotheses

Research hypotheses			β	T value	Result
Cognitive component		Green marketing mix model	0.533	10.214	Accepted
Affective component		Green marketing mix model	0.169	7.703	Accepted
Conative component		Green marketing mix model	0.343	5.663	Accepted
Cognitive component	Consumer social responsibility (moderating)	Green marketing mix model	0.065	0.952	Rejected
Affective component	Consumer social responsibility (moderating)	Green marketing mix model	0.033	0.799	Rejected
Conative component	Consumer social responsibility (moderating)	Green marketing mix model	0.079	1.231	Rejected
Green marketing mix model		Green consumer willingness	0.515	9.410	Accepted
Perceived quality		Green marketing mix model	0.090	1.375	Rejected
Perceived quality		Green consumer willingness	0.395	5.787	Accepted

Discussion and Conclusion

The COVID-19 pandemic has some effects on people's normal shopping behaviors (Truong & Truong 2022). People's behavior is driven not only by their wish to satisfy individual needs, but also concern about the interests of the entire society. There is plenty of evidence that demonstrates that attitudes are strongly linked to green intentions and purchases (Witek & Kuzniar 2021). The results of this study, which aimed to determine consumer willingness towards green products consumption in Iran during the COVID-19 pandemic. Respondents being aware of the importance of healthy green food products, were concerned about their health. Most of the participants believed that the COVID-19 pandemic has increased their green food products purchase willingness since their increasing health concerns. They mention that health consciousness influences the consumers' attitude and willingness towards green food products consumption through their lifestyle. Therefore, people's awareness about health concerns is a main issue to understanding the buying decision process of green food products consumers. The results of this study are consistent with Qi et al. (2020), Muresan et al. (2021), Witek and Kuzniar (2021), Chen et al. (2022).

This study develops the impact of three component attitude model on consumer willingness towards green food products consumption through green marketing mix model. The results of this study approve that cognitive, affective and conative components have impacts on people awareness of green marketing mix model. Furthermore, the result of marketing mix shows a positive correlation with green consumer willingness. The respondents believed that green product, place, promotion and price mix all affect consumer willingness. These findings provide empirical evidence that the effects of green marketing predict consumers' willingness towards green food products consumption. It means that when consumers have a positive attitude toward green products it can lead them to more favorable decisions to buy green food products. This result reiterates the findings of Bhutto et al. (2022), Chou et al. (2020) and Chang et al. (2019). As consumers' intention indeed plays a crucial part in planning green marketing strategies (Ansu-Mensah 2021), suppliers of food products should be aware of consumer willingness towards green products. They should apply green marketing strategies to help gain competitive advantage and appeal to ecologically conscious consumers (Lajevardi et al. 2021). A green marketing system has two distinct dimensions. One of those dimensions is the organizations that participate in a market and the second is the functions that the participating organizations perform (Pinheiro et al. 2022). According marketing management, there will generally be a more willingness towards green products consumption by consumers (Ansu-Mensah 2021). It is exactly consumers with higher cognitive, affective and conative components are more willing to buy green food products and even spend more money. Therefore, the marketing mix planning of suppliers' green food products should be based on consumer attitudes and their environmental effects (Lajevardi et al. 2021). Findings of Chou et al. (2020) indicated that consumers who

already bought green products were willing to repeat purchases. This may be because personal attitude affects the perception of marketing mix and consumers' willingness. Therefore, marketing mix has become very vital in the production of green products. The majority of studies have shown that green products are more expensive than conventional ones (Bhutto et al. 2022). Moreover, studies referred to the narrow scope of promotional activities. Informed consumers who have bought green products regularly displayed the greatest willingness to pay higher prices to purchase them. Furthermore, the availability of green products affects both purchasing intention and behavior (Witek & Kuzniar 2021). One of the important determining factors that impact the purchasing of green products is quality. Perceived quality assesses the extent to which the quality of a product is perceived by the consumer (Ansu-Mensah 2021).

Respondents believed that perceived quality affects green consumer willingness. This study has shown consumers with more perceived quality have higher willingness towards green products consumption. This result reiterates the findings of Chou et al. (2020) and Ansu-Mensah (2021). For a green marketing approach, the empirical results indicate that perceived quality has an impact on green consumer willingness. When consumers are aware of the perceived quality of green products, there is always the likelihood of the knowledge in ecological perception leading to an increase in their purchasing intentions. The green products certainly offer greater quality and worth which brings in its wake improved health and

high standard of living. As a result, perceived quality is a major qualifier for green products purchase (Ansu-Mensah 2021).

This study contributes to consumer willingness towards green products consumption due to uncertainty of COVID-19 pandemic along with three component attitude model and green marketing mix model. The findings of this study provide awareness for managers about the key factors that affect customer willingness toward green products consumption. The results reveal that three component attitude model and green marketing mix model are the key factors that reflect consumer willingness toward green products consumption. Managers should understand customers' attitude and willingness about the green food products consumption. The consumers' green products purchase attitudes due to uncertainty of the COVID-19 pandemic can increase consumers' green food products consumption willingness. Managers should highlight cognitive, affective and conative components as three component attitude model from the customers' point of view, which may be an effective marketing strategy for attracting people toward green food product consumption willingness. Managers should not only focus on product characteristics and necessary practices for their supply but also an emphasis on the consumers' attitudes toward their consumption willingness. The manufacturing companies should produce and introduce green products that reflects consumers' green product consumption willingness. It should be mentioned that when consumers have a positive attitude toward green food products, it will affect

their purchase decision. This finding is suitable for better understanding the customers' green food product purchase process and its antecedents.

One of the applications of implementing the results of this research is that managers and decision makers of green products production should focus on increasing the social responsibility of consumers of these products. Because the practical purpose of the model used in this article is to preserve the environment and increase the possibility of using its resources for future generations. Therefore, increasing the understanding of social responsibility and accountability of the people of the target community (case of study) can be a facilitator in achieving the stated goal.

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